

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 05-234899

(43)Date of publication of application : 10.09.1993

(51)Int.Cl. H01L 21/205
C23C 14/32
C30B 23/02
H01L 21/203
H01L 21/365
H01L 33/00

(21)Application number : 03-236105

(71)Applicant : HITACHI LTD

(22)Date of filing : 17.09.1991

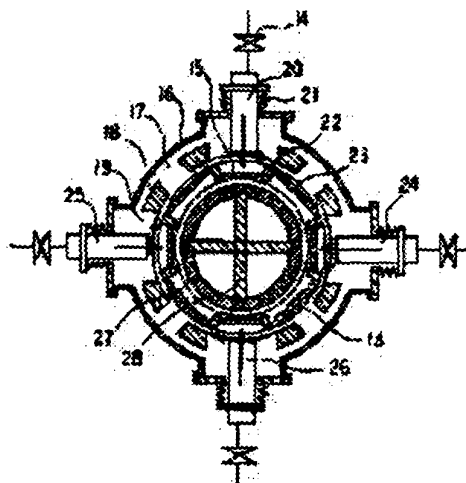
(72)Inventor : YAMAMOTO TATSU HARU
UDA MASA HITO

(54) ATOMIC LAYER EPITAXY APPARATUS

(57)Abstract:

PURPOSE: To reduce a volume of a vacuum chamber, to extremely effectively conduct an atomic layer epitaxy and to improve reliability.

CONSTITUTION: Gas cells 20, 24, 26, 25 are disposed in a vacuum chamber 16. Shapes of discharge ports of the cells 20, 24, 26, 25 are formed in a rectangular shape in which its long side is at least longer than a diameter of a substrate 15. A gas diffusion plate is provided from gas introducing tubes of the cells 20, 24, 26, 25 to the ports. A plurality of the substrates 15 are rotatably moved perpendicularly to the diffusing directions of the cells 20, 24, 26, 25 to alternately irradiate the substrates 15 with a plurality of types of the gases from the cells 20, 24, 26, 25, thereby repeating an atomic layer epitaxy.



LEGAL STATUS

[Date of request for examination]

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of request for appeal against examiner's decision of rejection]

[Date of extinction of right]